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AUTHOR Sproull, Lee S.
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ABSTRACT

This paper describes a study of managerial behavior in educational organizations that focused on managerial attention as an organizational coupling mechanism. Structured observation was used to collect minute-by-minute time allocation protocols for five first-line education program managers over 20 working days, and these protocols were analyzed to determine the structure and content of managerial attention. Section 1 presents a brief theoretical framework in which managers are viewed as information processors, and the concept of managerial attention is introduced as an important modification to conventional information processing theories. Section 2 describes the methodology of the study and the research sample. Section 3 presents the study's findings about the structure and content of managerial attention. Section 4 considers two implications of the findings for education systems: the mythology of regulation, and the quality of technical monitoring and feedback. Section 5 comments on the theoretical and practical utility of knowledge about managerial attention. (Author/JG)

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Managerial Attention Patterns: A Micro-Behavioral Analysis

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

Lee S. Sproull
Carnegie-Mellon University

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Introduction

Education managers (e.g., school principals, program directors) are as important to the well-being of the education enterprise as are teachers and students. Policy makers expect them to maintain established programs and implement new ones. Analysts and evaluators find that the school principal or program manager is a key figure in the success or failure of innovations.[1] Yet, in comparison with students and teachers, education managers have not been the subject of a great deal of behavioral research; consequently our empirically-based knowledge of their behavior is scanty.[2] This paper reports the results of one investigation designed to increase our empirical understanding of managerial behavior in education organizations. It is organized in five sections. The first presents a brief theoretical framework in which managers are viewed as information processors. The concept of managerial attention is introduced as an important modification to the conventional information processing theories. The second section describes the methodology of this study: the research sample and the means by which attention data were collected. The third section describes the findings about the structure and content of managerial attention. The fourth section considers two implications of these data for education systems: the mythology of regulation and the quality of technical monitoring and feedback. The final section comments on the theoretical and practical utility of knowledge about managerial attention.

Managers as Information Processors

Education managers exist and operate in a complex information environment. The simplest model of this fact is one in which the manager extracts relevant information from his/her environment and disseminates relevant information into the environment; i.e., the manager is both an information consumer and an information producer.[3] Implicit in this model and in most theories about information processing in organizations is a connectedness assumption. Information is connected to decisions; decisions are connected to action; action generates more information; and so it goes. In this connectedness view of information processing, managerial behavior is assumed to lie somewhere between that of economic man and that of a thermostat. Toward the more rational side, the manager is assumed to know in advance what should happen in his/her program. S/he acts so as to insure that it does happen. That is, s/he produces information that influences (is connected to) the behaviors of others in the proper direction. Toward the more cybernetic side, the manager is assumed not to be able to specify in advance what should happen. Rather, through monitoring actual performance and feedback, s/he is able to make small corrections to keep the program on course. That is, s/he consumes information about (that is connected to) performance in order to produce information that influences (is connected to) performance.

Recent research in education and other public sector organizations suggests that the connectedness assumption should not be taken for granted (March and Olsen, 1976; Sproull et. al., 1978). The connections between an individual and his/her information

environment may not be as stable, robust or predictable as conventional theories assume. It is not sufficient to assume that if relevant information is intended for actors in the system, they will become connected to it.

In these situations, the concept of managerial attention becomes important. Attention creates connections. If the manager attends to a particular piece of information in his/her environment, we can say the manager and the information are connected. If the manager attends to giving another organizational actor information, then we can say the other actor and the information are connected.

Because of the predominance of connectedness theories, attention is not a well-developed concept and attention focussing mechanisms are not well understood within an organizational context. To the primate ethnographer, attention usually means spatial orientation of the subject, particularly orientation of the head and eyes (Chance and Larsen, 1976). To the psychologist it usually means cognitive arousal (Mostofsky, 1970). Neither of these perspectives is satisfactory for studying managers in their natural habitat.[4] In the absence of prior theoretical guidelines it seems a sensible strategy to examine both the structure (corresponding loosely to spatial orientation) and content (corresponding loosely to cognitive orientation) of the manager's engagement with the world around him. Attention structure is characterized by asking

--To whom or what does the manager attend?

--At whose initiation?

--Where?

--Through what medium?

--For how long?

Attention content is characterized by asking

--What is the subject matter of the focus of attention?

--What is the stated purpose of attending to it?

The Study

Attention data were collected from five first-line education managers for twenty working days during the early spring of 1976. Each was the manager of a new, full-time innovative education program at the secondary school or community college level. Table 1 displays characteristics of the managers and their programs.

Attention data were collected by means of structured observation. This methodology involves having an observer shadow the subject, taking minute by minute notes on his/her activity. The data include information on both pre-specified categories (e.g., location, other, and duration of activity) and open-ended categories (e.g., the content or stated purpose of the activity, using the manager's own words).[5] As Mintzberg (1973) describes it:

> Structured observation . . . couples the flexibility of open-ended observation with the discipline of seeking certain types of structured data. The researcher observes the manager as he performs his work. Each observed event (a verbal contact or a piece or incoming or outgoing mail) is categorized by the researcher in a number of ways (for example, duration, participants, purpose) a diary method, but with one important difference. The categories are developed during the observation and after it takes place. In effect, the researcher is influenced in his coding process, not by the standing literature or his own prior experience, but by the single event taking place before him. In addition to categorizing events, the researcher is able to record information on important incidents and to collect anecdotal materials (Mintzberg, 1973:231-232).

In this study, observation yielded data on 10310 minutes of activity.

The data were then analyzed by means of a flexible unstructured data management program[6] to yield frequency distributions of the structure and content of managerial attention. The next section describes the characteristics of attention; the following one describes implications of these characteristics for program management.

The Structure and Content of Managerial Attention

Five characteristics of the structure of managerial attention are important when considering the manager as an information processor. The first is that attention is local. The manager spends about 75% of his/her workday (which is about 8.5 hours long) in the program offices, about 12% at lunch, and the remaining 13% outside the program offices, usually in meetings with the manager's superior and/or other people from the larger bureaucracy.

The second is that the structure of attention is extremely choppy. The manager's workday is composed of many episodes of very brief duration. Three different units of attention are useful in describing the duration of attention. The event is any continuous focus of attention to one medium and subject equal to or greater than one minute. The activity is the sum of one or more events devoted to one medium and one subject. The topic is the sum of all activities devoted to one subject. Thus, for example, if a manager is writing a budget report, someone interrupts to talk about budget projections, then the manager returns to writing, this period contains 3 events (writing, talking, writing); 2 activities (writing budget, talking

budget); and 1 topic (budget). The average number of events in the manager's day is 65 (average duration = 7.9 minutes); the average number of activities is 56 (average duration = 9.2 minutes); the average number of topics is 16 (average duration = 30.9 minutes). Thus on an average of 65 times during the workday, the manager changes the focus of his/her attention; this attention is devoted to an average of 56 different topics.[7]

A third striking characteristic of the structure of managerial attention is its oral nature. Whatever managers do, they tend to do out loud. Over theree-quarters of the manager's workday is spent talking to people (78% of the day). The manager averages 44 separate verbal interactions during the course of the day. Three of these are scheduled appointments or meetings with an average duration of 61 minutes for a total of 35% of the day; 27 are unscheduled face-to-face conversations with an average duration of 6.5 minutes for a total of 32% of the day; 14 are telephone calls with an average duration of 4 minutes per call for a total of 11% of the day.

The fourth characteristic of the structure of attention is that it is unpredictable. As noted above, only 35% of the day is spent in scheduled meetings, leaving 65%of the manager's day in unscheduled activity. Additionally about 14% of the day's activities are interrupted in some way.

The fifth characteristic of the structure of managerial attention is that it is as much other-directed as self-directed. The proportion of verbal contacts initiated by the manager is about 48%; the proportion initiated by others is only slightly less, about 44%. (The remaining verbal contacts are those spent in scheduled meetings.

Because it was usually not possible to know who had initiated a scheduled meeting, the initiator was coded as "calendar.") Although it is not possible to determine the initiator of managerial time alone[8], it is possible to report the interrupter or terminator of managerial time alone. About half of his/her work-alone activities are terminated by the manager; 25% are terminated by a scheduled appointment; the remainder are terminated by an incoming phone call, the secretary, or other program personnel.

Even before we begin to investigate the content of attention, it is possible to suggest implications of the structure of attention for managing new programs.[9] (Table 2 summarizes the five characteristics of the structure of attention.) The first is that access to the manager's attention is greatest for program personnel. Here "access" has three meanings. The first is the extent of managerial availability or the potential for engaging his/her attention (measured by the amount of time the manager spends at the program offices). The second is the extent of total contact between managers and program personnel. The third is the extent of unscheduled contact between the managers and program personnel. This third point is important because it is likely that the range of potential topics for attention is greater in unscheduled interactions than in scheduled meetings or telephone calls. A second implication of the structure of attention is that information mostly comes to and goes from the manager in conversations--not in memoranda, rule books, or formal reports. This has implications for the quality of information circulated by and to the manager--its complexity, immediacy, and accuracy. A third is that the manager juggles and is juggled by people and issues throughout the

day. This too has implications for the quality of information--its message length--and also for the penetrability of attention--the likelihood that the manager will focus on something that is not brought explicitly to his/her attention.

Four characteristics of the content of managerial attention are important when considering the manager as an information processor. The first and perhaps most striking is that the manager devotes relatively little attention to the technical core of the program--to issues directly related to teaching and learning. The total amount of such attention is 12% of the day; 8% of this total is contributed only by one manager who in addition to managing the program has classroom teaching responsibilities for 50 students. Excluding this classroom instruction, which is qualitatively different from managerial attention to teaching and learning, managers attend to the technical core for about 4% of the day (about 20 minutes).[10]

They attend to logistics--keeping track of people, materials, and supplies--for about 17% of the day. They attend to external requirements, usually imposed by the larger school district bureaucracy, for 11% of the day. And they attend to social pleasantries for about 11% of the day. (Table 3 displays characteristics of the content of managerial attention.)

The picture of the program manager that emerges from these characteristics is that of an individual turning and turned from one topic to another throughout the day. S/he is sociable, talkative, and obliging. Given the attention patterns described above, we would have to say the manager is not a technician--teachers do not come to him/her for advice about difficult or interesting teaching situations

they have encountered during the day. Nor is s/he a close monitor of program work, making adjustments on the basis of performance feedback. S/he is the expert on the location and status of people and supplies. And s/he is the buffer between the program and the larger bureaucracy, complying with requests and accepting information.

Implications for Progam Management

The foregoing characteristics of managerial attention can begin to lead us toward a better understanding of the relationship between a manager and his/her information environment. Here two implications for program management of the characteristics of attention will be explored. They are the mythology of regulation and the nature of technical monitoring and feedback. The study from which the foregoing data, and therefore the following implications, were drawn, focussed on new programs; however, the underlying behaviors are highly likely to be found in "mature" programs as well.

The oral, local and choppy characteristics of attention generate communication patterns that are short range, casual, familiar, idiosyncratic, and not highly redundant. These patterns importantly affect relationships between the program and the larger bureaucracy and the quality of internal program evaluation.

Every program (or school) operates within a context of policies and regulations stipulated by the larger bureaucracy. But this context from the program perspective, given the characteristics of managerial attention, is largely mythological. Managers with problems ask, orally, their sources in the larger bureaucracy for a solution. The source describes orally a policy or regulation, which the manager

then propagates orally throughout the program. The only unusual feature of this system is that what is propagated as "the rule" may not in fact be the rule at all.

> Manager B was asked by one of her teachers if she could take students on a field trip to another state. Manager B called the larger bureaucracy and was told field trips across the state line were "prohibited by the state education code." Her response was, "That's the craziest thing I've ever heard of." But she called back the teacher who had wanted to make the field trip and told her, "It's illegal." It later turned out that the manager had been misinformed by her source. There was nothing in the state education code prohibiting field trips out of state (Field notes, 1/14/76).

> One of Manager B's staff members had been telling teachers that "it was against the district rules" to grade some students on a letter-grade basis and others on a pass-fail basis within the same class. Manager B had repeated this information to teachers who asked her the same quesion. One day she was looking through one of the district course catalogs to find a particular course number and a paragraph on grading policy caught her eye. There was nothing in the policy which would prohibit mixing letter grade and pass-fail students in the same class. Manager B immediately confronted her staff member with the "real" rule and asked him to "clarify" the issue for all teachers. She also announced a "clarification" in a faculty meeting held that afternoon (Field notes, 1/14/76).

That managers rely on oral questionning of a small number of people is not a particularly surprising aspect of their behavior. We have documented that managers are busy, turning and turned from issue to issue throughout the day. Using "sources" is less time-consuming than searching through documents which may not be close at hand or easy to understand. In this regard it is interesting to note the relative distance between the manager's written and oral sources of information with respect to bureaucratic procedures and regulations. (Table 4 displays, for each manager, the distance between his/her desk

chair and the telephone and the distance between his/her desk chair and the district policy and procedure manual.) Furthermore a "source" is, by definition, someone the manager trusts. The lack of redundancy in communication means the manager rarely "checks" on the source's information by comparing it with that of another. Thus ease of consultation and presumed accuracy of information tend to reinforce sourcing as an information processing technique.

There is a second important aspect to the mythological character of rules. Not only are "false" rules promulgated as "true," but also on occasion "true" rules are ignored. These rules often have the characteristic that the manager encounters them on the way to solving a different problem. That is, the manager does not go to a source to ask explicitly about problem X, but rather in the course of talking about problem Y the source will say, "Oh, by the way, don't forget that you can't (or you must) do X."

> Manager D was talking with one of her colleagues about hosting a joint parent information day. In the middle of discussing whose budget would be charged with which costs, the colleague said, "Oh, by the way, don't forget that you can't have day care in the building where the parents will meet. It's not an earthquake building [i.e., does not meet the earthquake safety standards for children]." The manager scheduled daycare in that building anyway (Field notes, 2/17/76).

Unlike the cases of promulgating "false" rules which may be either detrimental or beneficial to program functioning, cases of ignoring rules are almost always perceived by the manager to be beneficial to the program. (That is, managers justify ignoring rules by such statements as, "We'd never get anything done if we followed those rules" or "That rule would stop us dead in the water.") Hence, in these cases, the oral nature of the manager's day is a useful

characteristic; the manager can more easily ignore rules that are conveyed orally than ones conveyed in writing.

An important managerial responsibility is maintaining the quality of technical core monitoring and feedback. Two primary means by which managers can contribute to this maintenance are by establishing and promulgating behavioral guidelines for participants and by evaluating their performance (March and Simon, 1958). With respect to behavioral guidelines, three implications of the characteristics of managerial attention are important. In order for managers to establish behavioral guidelines, they must first recognize or anticipate the existence of a repetitive situation. But short, choppy, oral stimuli may not be easy for the manager to recognize as repetitive. They do not "accumulate" in the same way that, for example, job applications pile up on a desk.

> On one day Manager A was asked by eight separate students how to register for community college courses. On each occasion Manager A gave a somewhat different answer (Field notes, 1/7/78). (This behavior may seem somewhat bizarre unless one notes that during this one day Manager A had 16 separate interactions with students plus 17 with staff.)

Second, even if managers do recognize that a particular kind of situation keeps reappearing, they may still not actually create a guideline or routine to handle it. Again the constant press of current verbal events may impede the development of procedures.

> Manager B had received three calls in one morning asking that her program sponsor courses at local industries. When the program secretary brought in messages from four more such calls, Manager B said, "We need a procedure to log these calls and respond to them consistently." The secretary agreed. But nobody created such a procedure. Two weeks later, those calls were still being handled in an ad hoc manner (Field notes, 1/14/76).

Third, even on those occasions when standard operating procedures (sops) were created, the managers more often than not conveyed them orally to program participants. Transmitting sops orally by no means guaranteed that each program participant would learn about the procedure. If a manager were asked how to do something and a procedure existed for it, s/he would describe it. In these cases, transmission depended on people's asking the manager a question. Occasionally the manager would describe a new procedure to whomever s/he happened to see. In these cases, transmission depended upon casual contact patterns between the manager and his/her staff. Thus for the most part, the way managers convey procedures to program participants does not insure that all participants will know about the procedure.

With respect to evaluating the performance of program participants (e.g., teachers), the characteristics of managerial attention again are important. The short choppy rhythm of the manager's attention patterns does not readily accomodate classroom observation of and careful discussion about teacher performance.

> No manager observed any teacher's performance in the classroom. Manager A did sit in for three minutes on a class taught by a volunteer from one of the local colleges. Afterwards he told her not to be afraid to tell students to be quiet (Field notes, 4/29/76).

Instead of systematic monitoring of teacher performance--either in depth analysis of individual performance or systematic sampling of behaviors across teachers, the characteristics of managerial attention are much more conducive to evaluation by anecdote. The manager listens to short stories about what a single specific person did in a single specific situation.

> Those interactions in which specific performance information was exhanged included: a parent calling to complain that a teacher had made "improper" suggestions to her child; students inviting a manager to inspect their work; teachers volunteering information about successful classes they had just taught (these discussions--there were three of them--lasted a total of seven minutes).

These anecdotes are almost always volunteered by a participant, not elicited by the manager. If they were a representative sample of all possible performance stories that could be told, then the collection of enough of them would give the manager a good sense of the quality of program performance. But the qualities of communication patterns discussed above--particularly the use of favored sources and the lack of redundancy--would suggest that this is unlikely.

Conclusion

This paper began by suggesting that conventional models of managerial behavior--the manager as economic man or the manager as thermostat--are inadequate and even misleading in analyzing education organizations because they fail to recognize the importance of their connectedness assumptions. I have tried to demonstrate that concepts and data about managerial attention are useful as an alternative way to view the manager in his/her information environment.[11]

Even this brief introduction should provide some new ideas for both practitioners and theorists. For example, those policy makers or external program developers who implicitly rely upon first-line managers to guide the implementation of new education programs should better appreciate the fragmented rature of managerial attention.[12]

They should analyze the kinds of behaviors they expect managers to exhibit in light of the structure and content of attention revealed above. Managers themselves should be struck by the extent to which what they "know" depends upon their patterns of contact with others. Understanding features of those patterns--particularly the effects of their choppy and unrandom nature--can help managers alter or compensate for them. (Note that focussing on the empirically grounded concept of attention would lead a manager to treat with some scepticism the kinds of advice often proffered by "time-management" consultants. "Establish your priorities and don't allow yourself to be interrupted" sounds far-fetched in the face of average spans of attention of five minutes.)

Theorists should be struck by two major questions. The first is what are the underlying mechanisms generating the kinds of attention patterns reported above? Elsewhere (Sproull, 1977; 1978) I suggest that features of both the position (first-line manager in the case of this study) and the technology (education in this study) contribute to generating these characteristics. The second question is what are the theoretical implications of challenges to connectedness assumptions in theories about organizations?[13] For analysts concerned with education organizations, connectedness assumptions lie at the very heart of our enterprise. They influence our methodology (questionnairing district superintendents about practices in schools makes little sense if the superintendent's communications patterns do not include attending to those practices). They permeate our models of decisionmaking (economic and cybernetic models both depend upon connections between information and action). And they confuse our

advice to practitioners (telling a first-line manager to "avoid interruptions" is meaningless if "interruptions" are only an arbitrary delineation from what is interrupted).

The prospect for increasing our understanding of managerial behavior, not just in education organizations but in all organizations, is an exciting one. We must not be afraid to commit ourselves to long periods of observation and study within one or a small number of organizations. In that way we can collect the extensive behavioral data necessary to develop, test, and refine our theories. Furthermore we can increase our admiration and respect for managers who, minute by minute, cope with complex and demanding situations.

Notes

1. For example, see Gross et. al., (1971) for the conclusion that the program manager was the key figure in the failure of an innovative elementary school program. See Berman et. al., (1975) for the conclusion that a "supportive principal" is strongly associated with successful program implementation.

2. The most notable exception to this lack of work is Wolcott's (1973) ethonographic study of an elementary school principal.

3. Note that one's view of the appropriate role for managers may determine the content of the information produced and consumed (e.g., administrative, instructional, etc.), but the behavioral model is perfectly general.

4. The closest approximation to field-based research on attention in organizations is managerial time allocation studies. (See, for example, Mintzberg, 1973; Cohen and March, 1974, 125-152; Carlson, 1951.) But they make no effort to distinguish between "presence" and "attention" and only one of them (Mintzberg, 1973) takes an explicit information processing approach.

5. See Mintzberg (1973), Sproull (1977), for extensive discussion of structured observation.

6. See Sproull and Sproull, 1978, for description of this program.

7. The choppy nature of the day is further emphasized when one omits from these statistics the three hours of the day the manager spends in formal, scheduled meetings. Then, considering that portion of the day when the manager is not in scheduled meetings the average number of managerial activities is 53 with an average duration of 6.1 minutes.

8. In one sense the manager initiates 100% of all time alone; if the manager is alone, it is because s/he chooses to be. In another sense, s/he initiates 0% of all time alone; if the manager is alone, it is because no one has chosen to talk with the manager at that moment.

9. These data are quite similiar to those of other studies that have examined managerial time allocation. See Sproull (1977) for extended comparison of these data.

10. By contrast, in the larger study from which these data are drawn managers of a new program in state government with responsibility for collective bargaining in education spent 30% of their attention attending to the technical core (Sproull, 1977).

11. What I have not done here is develop a theoretical accounting of the underlying behavioral mechanisms that generate the observed patterns of attention. That work is in progress (Sproull, 1978).

12. This point is important not just for education managers.

13. See Weick (1976) for an examination of ideas about loose-coupling in education organizations.

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Table 1

Descriptive Characteristics of Programs in Which Managerial Attention was Observed[a]

Charactistics	Program				
Context	A	B	C	D	E
Location	Urban	Urban	Small City	Urban	Small City
Larger Organization	School Dist.	Comm. College Dist.	School Dist.	School Dist.	School Dist.
Larger Org. Enrollment	~ 54,000	~ 10,000	~ 50,000	~38,000	~29,000
Larger Org. Budget	~ $93million	~ $25million	~ $89million	~ $70million	~$37million
Program					
Annual Budget	$650,000	$350,000	$200,000	$900,000	$160,000
Professional Staff	9	10	5	12	5
Clerical Staff	1	3	1	3	1
Enrollment	250	300	80	260	75
Type of Program	Career Educ.	Nontraditional	Career Educ.	Bilingual	Career Educ.
Age of Program when Observation began	3 mos.	1 mo.	3 mos.	3 mos.	3 mos.
Manager					
Job Title	Principal	President	Program Co-ordinator	Director	Head teacher
Amt. previous managerial experience	1 yr.	2 yrs.	2 yrs.	none	1 yr.
Amt. previous experience in same context	3 yrs.	none	10 yrs.	2 yrs.	12 yrs.
Age	30-35	40-45	40-45	30-35	45-50
Sex	Male	Female	Male	Female	Male
Race	Black	White	White	Chicana	White

[a]Adapted from Sproull (1977: 24)

Table 2

Summary of Structural Characteristics of Managerial Attention

Structure

Local: 75% of day at program office
Choppy: 65 events averaging 7.9m; 56 activities averaging 9.2m; 16 topics averaging 30.9m
Oral: 78% of day spent in conversation
Unpredictable: 65% of day spent in unscheduled activity; 14 % of activities interrupted in some way
As much other-directed as self-directed: self to other attention directing ratio of 1.1 to 1.0

Table 3

Distribution of Attention by Subject Matter and Interaction Partner (in minutes)[a]

(School-Based Managers)

SUBJECT MATTER	INTERACTION PARTNER				
	Program Participants	Superior & Bureaucracy	Public & Peers	Self	Total
Program					
Technical Core	1137	24	--	94	1255
Evaluation/Monitoring	469	2	15	208	694
Public Information	--	--	266	--	266
Forecasts, Schedules & Records	145	27	--	65	237
Logistics					
Personnel Deployment	413	377	129	176	1095
Materials & Supplies	291	246	1	124	662
Desk	124	3	22	258	407
Environment					
External Requirements	362	445	168	189	1164
External Information	52	407	179	190	828
Interpersonal Relations					
Social Pleasantries	1067	7	18	34	1126
Personnel Counseling	180	2	89	--	271
Review	1287	18	--	162	1467
Other					
Personal	--	--	--	584	584
Talk to Researcher	--	--	--	233	233
Unknown	--	--	--	21	21
Totals	(5527)	(1558)	(887)	(2338)	10310

a. From Sproull (1977: 39)

Table 4

Comparative Ease of Managerial Access to Two Sources of Information About Bureaucratic Procedures and Regulations*

MANAGER	DISTANCE BETWEEN DESK CHAIR AND TELEPHONE	DISTANCE BETWEEN DESK CHAIR AND PROCEDURE MANUAL
A	2 ft.	∞ [a]
B	3 ft.	6 ft.
C	1.5 ft.	~ 500 ft. [b]
D	1.5 ft.	4 ft.
E	2 ft.	~ 1.5 mi. [c]

a. Manager A reported that the district had no procedure manual. "They used to have one, but its being revised or something." (field notes 1/3/76).

b. The procedure manual is kept with the secretarial staff in a separate building.

c. The nearest copy of the procedure manual is in the district office.

*Adapted from Sproull (1977: 89)